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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,952	08/26/2003	Jamil Omar-Hatem El-Reedy	064731.0386	4069

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EXAMINER

HUGHES, DEANDRA M

ART UNIT	PAPER NUMBER
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3663

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/648,952	<b>Applicant(s)</b> EL-REEDY ET AL.	
	<b>Examiner</b> Deandra M. Hughes	<b>Art Unit</b> 3663	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/26/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 16, applicant claims that the source is proximate an upstream amplifier. In dependent claim 17, applicant claims that the source comprises the said upstream amplifier. The source cannot both comprise and be proximate to the upstream amplifier.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 8-13, 17 (as best as it is understood), 18-23, and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 6,229,631 published May 8, 2001).

**\*\*The references made herein are done so for the convenience of the applicant. They are in no way intended to be limiting. The prior art should be considered in its entirety.**

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With regard to claims 16-17, Sato discloses a system for automatically setting a gain for an amplifier in an optical network, comprising:

- a source (#10) proximate an upstream amplifier (#12a) coupled to an optical span (#11a-#11c);
- the source *operable to transmit a stable signal over the optical span* (supervisory signal; col. 9, line 15);
- a downstream amplifier coupled to the optical span (#12b) ,
- the downstream amplifier *operable to use the stable signal to automatically set a gain of the downstream amplifier* (col. 10, lines 5-6; fig. 33) .

With regard to claims 18 and 21-22, col. 7, lines 60-65, discloses ASE and optical powers as estimation parameters for the supervisory signal.

With regard to claims 19-20 and 26, each device communicates with the simulator regarding its mode of operation which includes both power level and gain control (col. 6, lines 25-35).

With regard to claims 23 and 25, fig. 2 discloses the power penalties.

With regard to claim 27, the EDFAs #12a and #12b include laser diode pumps (fig. 35, #184).

The Examiner considers the claim language identified in italics above to be functional limitations, i.e. intended use. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function alone. Since the structural

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limitations have been met by the prior art, the Examiner has reason to believe that the function limitations can be performed by the prior art structure. See MPEP 2114.

Claims 1-6 and 8-13 are merely the method of normal operations of the apparatus as claimed.

Please note the use of additional functional language, i.e. the phrase 'operable to' in claims 19-22 and 25-26.

5. Claims 1, 7, 16, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Fatehi (US 6,377,394 published Apr. 23, 2002).

With regard to claims 16 and 24, Drake discloses a system for automatically setting a gain for an amplifier in an optical network, comprising:

- a broadband source (fig. 5; MULTIWAVELENGTH INPUT SIGNAL) proximate an upstream amplifier (#60) coupled to an optical span (see splices in fig. 2);
- the source *operable to transmit a stable signal over the optical span* (fig. 2);
- a downstream amplifier coupled to the optical span (#62),
- the downstream amplifier *operable to use the stable signal to automatically set a gain of the downstream amplifier* (AGC is controlled via signal #500).

Claims 1 and 7 are merely the method of normal operations of the apparatus as claimed.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14-15 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 6,229,631 published May 8, 2001) in view of Lauder (US 2004/0071392 filed Nov. 27, 2001).

With regard to claims 28-29, Sato does not specifically disclose a shutter switch to block optical traffic from reaching the source. However, Lauder teaches the use of an optical shutter switch to prevent optical traffic from reaching a source (fig. 4). It would have been obvious to one of ordinary skill (e.g., an optical engineer) in the art at the time the invention was made to use a shutter switch for the advantage of shutting down the system in the event of a system failure.

Claims 14-15 are merely the method of normal operations of the apparatus as claimed.

Please note the use of functional language, i.e. the phrase 'operable to...' in claim 28.

***Allowable Subject Matter***

8. Claim 30 is allowed.

9. The following is a statement of reasons for the indication of allowable subject matter.

The prior art does not teach or make obvious *a stable signal transmitted at a power level such that the signal is received at the downstream amplifier at a power level of at least approximately -30 dBm* in conjunction with the other features of the claim.

This statement is not intended to necessarily state all the reasons for allowance or all the details why the claims are allowed and has not been written to specifically or impliedly state that all the reasons for allowance are set forth (MPEP 1302.14).

#### ***Information Disclosure Statement***

10. The information disclosure statement (IDS) filed on 8/26/03 has been considered by the examiner. However, Item R has been lined through because the reference was not provided. The Examiner attempted to retrieve the reference via the cited website. However, the site [www.photuris.com](http://www.photuris.com) is no longer in operation.

#### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hadjifotiou, Kawasaki, Lelic, Pettitt, Takahashi, Tomofuji, Tsuda, and Wada disclose the use of supervisory or telemetry signals for controlling optical amplifier operations.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deandra M. Hughes whose telephone number is 571-272-6982. The examiner can normally be reached on M-F, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Deandra M. Hughes  
Examiner  
Art Unit 3663